

SANTA ANA COLLEGE, Engineering 201 - **Architectural Practice** 5 units credit. Section 28075 Plan to spend an average of 15 hours per week for this class including 3 hours per week lecture/or online lecture material, lab work, plus group work, homework, assignments, quizzes, exams and reading/study. 5 units of credit.

Spring 2010, Class Schedule: Monday 4 - 6:50 p.m., Room A-216, plus Lab hours.  
The **CAD Lab** schedule is available at the [Engineering Department website](#).

**Instructor: Susan Sherod**

**Office:** A107-12, phone: 714-564-6787 **email:** [sherod4sac@yahoo.com](mailto:sherod4sac@yahoo.com)

**Office hours:** See course Bb website Staff link. No office hours on holidays when campus is closed.

**Required Textbook:** Architectural Drafting and Design, 5th Ed. by Alan Jefferis & David A. Madsen

**Required Email Account:** Email is required for this course. See instructor if you need to set up a free email account.

*This syllabus may be adjusted over the duration of the course. Review the Course website a few times per week for updates.*

**COMPLETE ASSIGNED READING, LECTURE AND LAB MATERIALS BEFORE ATTEMPTING PROBLEMS, TEST DRAWINGS, OR QUIZZES. SUBMIT ASSIGNMENTS IN ASSIGNMENT LINKS WHEN DUE. NAME FILES AS DIRECTED IN Bb FOR EACH UNIT OF WORK. Student name and Filename must BOTH appear in the digital versions of the drawing. ASSIGNMENTS ARE GRADED FOR PROGRESS APPROXIMATELY EVERY FOUR WEEKS. ALWAYS BACKUP ALL YOUR WORK TO A SEPARATE DRIVE. CORRECTIONS RETURNED TO YOU AND ADDITIONAL COMPLETED WORK MAY BE RESUBMITTED FOR RECHECK AT MIDTERM AND FINAL REVIEWS. QUIZZES WILL BE POSTED BY 12:00 A.M. MONDAY IN WEEKS GIVEN. SUBMIT THE CURRENT QUIZ EACH WEEK BEFORE 12:00 A.M OF THE FOLLOWING MONDAY. THERE ARE NO MAKE-UP QUIZZES. ALL STUDENTS MUST LOGIN TO BLACKBOARD FOR COURSE WEB MATERIALS EACH WEEK. NOTE: Bb uses your WebAdvisor ID and password.**

## Unit I. Examining a Project

### February 8 - Lecture 1

Initial selection of a project that you will work through over the course of the semester from several options provided. Research Number and types of drawings required to satisfy client, building codes and contractor for the project selected. This research will include obtaining information per the course website. Read and follow directions carefully. Details are in this unit/week's links.

**Reading:** See Bb

**ASSIGNMENTS:** See Bb

**QUIZ 1 - nongraded practice quiz**

### February 15 - Lecture 2 - all online - **note: campus closed Feb. 15 Holiday. Bb available 24/7.**

**No in person class on February 15. Campus closed for President's Day. Bb will be available via remote login.**

Research codes and public agencies for the selected project and gather documentation. Create a written feasibility summary with supporting documentation for the project including drawings or sketches and a site plan, etc. Details are in this unit/week's links.

**Reading:** See Bb

**ASSIGNMENTS:** See Bb

**QUIZ 2****February 22 - Lecture 3**

Thoroughly photograph or copy/clip photos of similar projects in their various phases of construction. Create a presentation from the images with appropriate labels. Details are in this unit/week's links. If your photos are hardcopies, you must scan them to incorporate them in a digital presentation. A scanner is available in the CAD Lab, and other on campus computer labs. Facilities like Kinko's may be helpful to you, but will charge a fee to use their equipment..

**Reading:** See Bb

**ASSIGNMENTS:** See Bb

**QUIZ 3****Unit II.****March 1 - Lecture 4**

Create the site plan and floor plans. For details about what elements must be included see this unit/week's links. .

**Reading:** See Bb

**ASSIGNMENTS:** See Bb

**QUIZ 4****FIRST GRADING OF PROJECTS, FIRST OF 4 GROUP PRESENTATIONS****March 8 - Lecture 5**

Finish creating floor plans. Begin creating elevations. For details about what elements must be included see this unit/week's links. .

**Reading:** See Bb

**ASSIGNMENTS:** See Bb

**QUIZ 5****March 15 - Lecture 6**

Create exterior elevations. Create section(s) showing major features. Create at least 2 sections that depict major features of the project. For details about what elements must be included see this unit/week's links.

**Reading:** See Bb

**ASSIGNMENTS:** See Bb

**QUIZ 6****Unit III****March 22 - Lecture 7**

Create other drawings needed based on the type of project chosen. For details about what elements must be included see this unit/week's links. .

**Reading:** See Bb

**ASSIGNMENTS:** See Bb

**QUIZ 7**

**March 29 - Lecture 8 - MIDTERM week - Campus closed March 31, Holiday. Bb available 24/7.**

**SECOND GRADING OF PROJECTS, SECOND OF 4 GROUP PRESENTATIONS****Reading:** See Bb**ASSIGNMENTS:** See Bb

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**SPRING BREAK! NO CLASSES & CAMPUS CLOSED FROM APRIL 5 THROUGH APRIL 11**

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**April 12** - Lecture 9

Research vendors for doors, windows, lighting, plumbing. Add schedule data and create schedules. Details are in this unit/week's links.

**Reading:** See Bb

**ASSIGNMENTS:** See Bb for details. Prepare for Midterm. Review and complete all prior drawing assignments. There is no need to resubmit work that was correct and completed, however if you corrected your prior work, you should resubmit it. See [Assignment Review and Evaluation](#) details about grading.

**QUIZ 8****April 19** - Lecture 10

Working Drawings and preparation for Plan Check Review. Continuation of work, building from the Basic Drawings to create the Working Drawings.

**Reading:** See Bb**ASSIGNMENTS:** See Bb.**April 26** - Lecture 11

Add a minimum of three details: one architectural, a second of structural, a third of either. Further information is in this unit/week's links. Continue or Add Interior Elevations at areas with cabinets, or other features such as plumbing that require more detailed information. Add interior elevation dimensions as necessary. Details are in this unit/week's links.

**Reading:** See Bb**ASSIGNMENTS:** See Bb**QUIZ 10****May 3** - Lecture 12

Add the following content items to your drawing: plumbing fixtures, kitchen appliances and cabinets, furniture throughout, plants and lighting. Details are in this unit/week's links.

**Reading:** See Bb**ASSIGNMENTS:** See Bb**QUIZ 11****THIRD GRADING OF PROJECTS, THIRD OF 4 GROUP PRESENTATIONS****Unit V****May 10** - Lecture 13

Organize your drawings, check drawings names for files, check title blocks, check layers, text style and dimension styles. Correct/ complete all drawings. See this unit/week's links for more detailed information.

**Reading:** See Bb

**ASSIGNMENTS:** See Bb

**QUIZ 12**

**May 17** - Lecture 14

Plan Check and Graphic Presentation Requirements. See this unit/week's links for more detailed information.

**Reading:** See Bb

**ASSIGNMENTS:** See Bb

**QUIZ 13**

**Unit VI**

**May 24** - Lecture 15

Submit drawings for checking with a final graphic presentation summarizing the project. Complete corrections from checking for your project. Final written paper describing the entire project, delineating choices made with respect to the project; site, floor plan, layout, materials, orientation, choice of drawings created, problems encountered and solved and a self-evaluation of learning and experience gained. Details are in this unit/week's links.

**Reading:** See Bb

**ASSIGNMENTS:** See Bb

**QUIZ 14**

**Final Review/Final Exam - in person in A225 date/time TBA. May 31 Campus closed for Holiday. Bb available 24/7. FOURTH GRADING OF PROJECTS, FOURTH OF 4 GROUP PRESENTATIONS**

**FINAL REVIEW** Create a zipped file of all assignments with all related documents, drawings, images, etc. for your portfolio. Check that you have a backup copy of all your work saved into the digital dropbox or another location remote from your hard disk. Details are in this unit/week's links.

**Reading: No textbook assignment, but review the information above and in this week's lecture and lab links to prepare for the final review/exam.**

**ASSIGNMENTS:** See Bb for details.

**FINAL EXAM: Comprehensive final must be taken IN PERSON at SAC. Your class work files must ALL be turned in to the instructor via the Assignment links for Final Review NO LATER than June 3 at midnight.** There is no need to resubmit files for which you have already submitted correctly completed work in prior Assignment links. Any work submitted after this date is LATE, and may not be graded.

**Quizzes: MISSED QUIZZES CANNOT BE MADE UP! YOU MUST LOGIN AND TAKE THE QUIZ DURING THE WEEK IT IS POSTED.**

If you plan to become knowledgeable about AEC you must commit yourself to read, study, and practice in a highly productive manner. You must be involved in the learning process 100%. Important aspects of your involvement include (1) Attendance & Participation, (2) Utilization of textbook and internet resources. This syllabus may be subject to minor modifications.

**Best wishes to each of you for a successful semester in Engineering 201!**

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**ENGINEERING 201, COURSE INFORMATION**

**CLASS DESCRIPTION:**

This course provides students with "real-world" practical knowledge needed to research information, make decisions, develop a basic design, experience the process of working through a project, and understand how various activities are related in the scope of a typical small project. Projects will not be for actual construction, but will simulate the "real-world" process. Prior CAD training or experience is strongly recommended. Suggested preparation: Engineering 149, 112 and 142. May be repeated. Advisory reading level: 3.

**TEXT:**

THE TEXT MUST BE USED FOR EVERY CLASS MEETING (virtual or in person). It is the main focus of instruction and practice.

**METHOD OF PRESENTATION:**

Lecture, Demonstration, Internet methods, Email, Individual Instruction. You will be given a login and password and you must have it for ALL class meetings to gain access to this Blackboard website. You must have or set up an email account and email me the first day of class with your full name, and the class, ENG 201, in the subject line. All students must provide a working email address in the Bb system. To do so, select Tools and then Edit Personal Information. Type in a correct email address in the area provided for it. You may create a free email account with hotmail.com or yahoo.com.

**QUIZZES:**

See the Syllabus for the Class Meetings, Quiz dates and Assignment Schedule. QUIZZES CANNOT BE MADE-UP IF MISSED! All quizzes are on a 5 minute timer. Be sure to submit your quiz before the 5 minutes elapse or you will not be given any points. The practice quiz allows you to try taking a quiz at SAC or on a remote computer and no points are given for it. The Computer Conduct quiz is required but no points are given for it. ALL enrolled students must read the Computer Conduct PDF file and take the Computer Conduct quiz. Select the Course Information button to locate these items. A new quiz will be turned on each day the class meets except our last class meeting when we will have a Final Exam. The first quiz is an ungraded practice quiz. The 15 graded quizzes will run on a five minute timer which shows toward the bottom of the screen. If you take more than 5 minutes you will score no points, so be sure to submit before the 5 minutes timer elapses. A one minute grace period may be allowed. Take the quizzes before the end of the week. They will be removed (by timer) the following Sunday when the next quiz is posted. All quizzes are open book, open notes, and open computer, however, the limited time means you do need to study and not rely too heavily on reference materials for quizzes.

**ASSIGNMENT REVIEW AND EVALUATION:**

During the course there will be regular evaluation of your progress as well as the midterm & final review/evaluation. The Final Exam will be as noted in the current syllabus. NO Final Exam Reviews will be done after the scheduled Final Exam excepting in cases of serious documentable emergencies. **Students are required to submit assignments to the assignment links for grading. A single .zip file is preferred.** The Midterm Review will be an evaluation of your drawings to date. The Final Review and Evaluation during the last week of class, will be an individual review of all your work by the instructor. At this time you will be expected to display assignments and demonstrate knowledge of the course materials. Unless you have a serious documentable emergency and tell the instructor about it immediately, work will not be accepted late. If accepted, late work may be assessed a 20% grade reduction penalty. The midterm and final review of work is worth 60% of your overall grade so it is very important to be ready for these reviews. Students may create assignments outside of the CAD Lab. A lab assistant is available in the CAD Lab during its hours of operation. Instructor support is available in the form of email, FAQ, referenced materials in the text, and other websites referred to in

the Lecture, Lab, or External Links materials posted to Bb.

All students must take the final in person at the SAC CAD Lab.

### **GRADING FACTORS/GRADING SCALE.**

Be sure to check Blackboard to review your scores every week. Due to Blackboard use it is necessary to use a point system for grades. At end of semester the total points earned will determine your grade.

A = 90-100%

B = 80-89%

C = 70-79%

D = 60-69%

F = 0-59%

Midterm 15%, Final Exam 15%, Assignment Evaluations 50% (includes all group projects as well as individual weekly progress), Quizzes 20%

### **CHEATING/COPYING.**

While cooperative effort, consultation, and discussion are effective (and strongly encouraged) ways in which to learn, you are expected to complete your own work. Submitting copied or duplicated work of another student is considered cheating. Cheating may result in an "F" grade in the class and possible suspension from the college. Allowing another student to copy your work may result in the same penalty for you. Do not let anyone copy your work!

### **ATTENDANCE POLICY:**

You are responsible for taking your quizzes each week and emailing progress each week. These are the primary methods by which your class participation can be assessed. Try the practice quiz ahead of time with whatever computer you later plan to use for quizzes. You are expected to complete all lecture and lab sessions within the weeks allotted for this course. **PLACE A HIGH PRIORITY ON REVIEWING THE POSTED INFORMATION AND LECTURE MATERIALS EACH WEEK!** If you decide to discontinue the class, it is your responsibility to drop the course. Failure to do this may result in an "F" grade for the course. Students are responsible for complying with the "add/drop" procedures and for processing add/drop forms with the Admissions office before the deadlines.

### **LAB HOURS/ARRANGED HOURS:**

The class workload for courses at SAC is generally intended to require 48 hours of work for each unit of credit, so 4 units equals a total of 192 hours of work. Plan your time accordingly. The CAD lab will be open each week. The [Lab Schedule](#) is posted on the [Engineering Department website](#) and also available in the CAD Lab, at A-225 on campus. Students are responsible for reading and complying with all aspects of the "Standards of Conduct For computer Classrooms and Computer Labs". The Computer Conduct Information is the first link on the Course Information page of this class and must be read and agreed to by all students who use SAC computers. The quiz posted for Computer Conduct allows you to select true to demonstrate your agreement with SAC rules. You cannot use SAC computers if you don't read the form and select true when you take the quiz.

### **COMPUTER SOFTWARE USED**

This course will utilize some software for which you may need to download additional files if you do some work outside of the SAC CAD Lab. The links for files are listed under the **External Links Button**. Viewers used to see or work with files posted here are Adobe Acrobat Reader, PowerPoint viewer, QuickTime, etc. Winzip or similar file compression software should be used to submit multiple files, and AutoCAD 2008 is the preferred CAD software though any CAD program compatible with it is allowed. ENG 183 & 184 or the equivalent are recommended prior to taking this

class. Textbook questions may require written answers which should be created using word processing software and saved as **.rtf files**, or they may require drawings in which case they should be saved in .dwg format. Any CAD software may be used so long as the .dwg files are compatible with AutoCAD 2008. Note: Most older version of AutoCAD are compatible, EXCEPT not 2002. Microstation .dwg files and IntelliCAD .dwg files should also work. If in doubt verify compatibility. Create a file using your software then open it using AutoCAD2008 on a school computer. **The SAC computers have all needed software and are available in Labs per posted schedules.**

#### **MINIMUM STUDENT MATERIALS:**

Textbook with or without a companion CD ROM. Drawing scales for architectural, civil engineering, and metric scales (we stock some scales for use when in the CAD Lab). A combination scale having all three types of scales may be used as well. At least two 3.5" High density 1.44 MB capacity floppy diskettes, BUT removable USB drive or CDR disks are highly recommended to download and save the CAD Standard files as well as PPT lectures and AVI files. **Printing these files at the SAC Computer Labs is not allowed, and may result in expulsion from the CAD LAB.** They are large many page long files. It is advisable to **save them to disk** for your review. 3-ring binder, notepaper, pencils/pens, are helpful as for any class. This class requires access to the internet, an email account, and use of several software applications noted in the course website.

#### **GETTING OFF TO A GOOD START:**

It is important to get off to a good start, so collect and organize everything that you need a.s.a.p. Santa Ana College is eager to accommodate students with disabilities. It is the responsibility of the student to inform the instructor of any special needs in a timely manner. Recommendations for the serious student follow:

You cannot afford to fall behind. Read ahead as much as you can to be prepared for each class session.

1. Get the text immediately. The initial lecture will refer to information and assignments in the text.
2. Work your way through the "Orientation" on the computers on the [Engineering website](#) if you plan to use the SAC CAD Lab. There is good information you need to know for using computers in our class if you plan to use the lab that is included in the Orientation but may not be covered in course materials. From the [Engineering Department website](#), take the self grading Online Engineering Courses pretest, read the information, review the information at the links and then take the posttest. Do the first week of the first Unit. Be sure to send the instructor an email the first week of class.
3. Plan to attend class regularly in person and via the internet. Quizzes, lectures, and lab demonstrations will be posted and available each week of class. Quizzes will be turned on each week by midnight Sunday (this is the same as Monday at 12:00 a.m.). Plan a storage method to back up ALL your assignments off of your hard drive to avoid the possibility of loss of data. The course digital dropbox is an excellent backup method, but email should be used to send your work to the instructor. Do reading and lecture material **BEFORE** attempting the corresponding quiz.
4. Find a "Learning Partner" for mutual help with questions about materials, assignments, or internet use. The instructor cannot be expected to bring you up-to-date if you miss an announcement by not logging into the Bb site or by not checking your email daily. **All students must provide a working email address in the Bb system. To do so, select Tools and then Edit Personal Information. Type in a correct email address in the area provided for it. You can get a free email address at hotmail.com or yahoo.com if you need one.**
5. Be sure to review announcements in Blackboard regularly. Visit the Lectures links and Course Information Links daily. Minor changes or updates may be made, which is another reason that

printing web posted information is NOT advisable.

6. After consulting your study buddy if you still have a question about something email me for help!

Last Updated on 01/24/2010 19:24

By Susan Sherod